

Budget Methodologies: Comprehensive Notes

1. The Annual / Master Budget

Definition

The master budget is the comprehensive plan that expresses management's operating and financial goals for a full year (usually the fiscal year). Master Budget—also called the Annual Budget or Comprehensive Budget—is the final, consolidated financial plan for a company's fiscal year. It is also called the comprehensive budget.

Is the Master Budget a Set of Current Year Financial Statements?

Not exactly. The master budget is a forward-looking plan, not a record of current or past financial results.

What the Master Budget Is

- A comprehensive financial plan for the upcoming fiscal year.
- Includes budgeted financial statements (income statement, balance sheet, cash flows).
- Based on expected future expenses, revenues, and activities.
- Prepared before the year begins, using assumptions about sales, production, staffing, etc.

What the Master Budget Is Not

- It is not the actual financial statements of the current year.
- It is not a historical report—it's a static budget built on planned activity levels.

Think of It Like This

The master budget is a map of where the company wants to go financially—not a snapshot of where it is now.

Components of the Master Budget

The master budget is a set of budgeted financial statements, including:

- Budgeted Income Statement
- Budgeted Balance Sheet
- Budgeted Statement of Cash Flows

These are prepared:

- By responsibility center, then
- Consolidated into the company-wide master budget.

Budget Preparation and Components

- **Process Flow:** Starts with sales budget (drives production/purchases), then operating budgets (e.g., production, direct materials/labor, overhead), culminating in financial budgets (cash, capital expenditures). Master budget integrates all.

- **Standard Costs in Budgeting:** Used in flexible budgets for per-unit variables; enables variance analysis (e.g., price/efficiency).
- **Fixed vs. Variable Costs:**
 - Fixed: Unchanged with activity (e.g., depreciation: \$516,000 annual = \$43,000 monthly in flexible budget).
 - Variable: Scaled by actual output (e.g., indirect materials: \$1.25/unit × actual units).
- **Capital Expenditures Budget:** Long-term (e.g., 9 years for equipment); evaluates full useful life; separate from operating budgets but impacts them.

What Is a Pro Forma Financial Statement?

A pro forma financial statement is a forecasted or hypothetical financial report prepared for planning and decision-making purposes. It is not part of the formal budgeting process, but rather a tool used to explore different scenarios.

Why Use Pro Forma Statements?

They help management answer questions like:

- “What if we launch a new product?”
- “What if we increase prices by 10%?”
- “What if we acquire another company?”

These statements allow companies to simulate outcomes before making strategic decisions.

Types of Pro Forma Statements

Type	Purpose
Pro Forma Income Statement	Forecast future revenues, expenses, and profits
Pro Forma Balance Sheet	Estimate future assets, liabilities, and equity
Pro Forma Cash Flow Statement	Predict future cash inflows and outflows

Key Characteristics of Pro Forma Statements

- Not used for formal variance analysis like the master budget.
- Flexible and informal—can be revised multiple times.
- Often used in top-level planning, mergers, expansions, or financing decisions.
- May differ significantly from the master budget, which is fixed and used for control.

Example Scenario for Pro Forma Statements

Imagine a company wants to explore the impact of opening a new factory. They might prepare:

- A pro forma income statement showing expected sales and costs.
- A pro forma balance sheet showing new assets and financing.

- A pro forma cash flow to assess liquidity needs.

These help decide whether the expansion is financially viable.

Pro Forma vs Master Budget

Aspect	Pro Forma Statements	Master Budget
Purpose	Used for planning and “what-if” analysis	Used for formal control and variance reporting
Frequency	Many versions can be made	One final, formal version
Focus	Forecasted financials for specific assumptions	Approved operational & financial plan
Relation	Support planning	Basis for performance evaluation

Nature of the Master Budget

- It is a static budget – prepared for one activity level (planned volume).
- Based on financial and non-financial assumptions, e.g.:
 - Units to be produced and sold
 - Number of employees required
 - Operating and financing needs

Operating vs Financial Budgets

Type	Purpose	Examples
Operating Budgets	Identify resources needed for daily operations	Sales, Production, Purchases, Marketing, R&D
Financial Budgets	Identify sources and uses of funds	Cash Budget, Capital Expenditure Budget, Budgeted Balance Sheet, Statement of Cash Flows

Responsibility Centre Budgets

- Each department (centre) prepares its own budget.
- Managers are accountable for achieving their budget targets.
- These are combined to form the master budget.
- Provides better control and feedback.

2. Static Budgets vs Flexible Budgets

Budgets are quantitative expressions of plans for a defined period. They can be static (fixed for one activity level) or flexible (adjusted for actual activity).

Static Budget

- Prepared for one planned activity level.

- Does not adjust to actual activity.
- Used in the master budget.
- Variances (differences between actual and budgeted figures) from the static budget often result from volume differences (actual volume minus estimated volume).

Disadvantage: Variance analysis becomes less useful, since changes in volume distort results.

Flexible Budget

Definition: A flexible budget adjusts revenues and variable costs to the actual activity level achieved. It answers: “If we had known the actual level of activity, what would our budget have looked like?”

Preparation of Flexible Budget

1. Start with the static (master) budget.
2. Identify variable costs per unit and fixed costs.
3. Multiply variable costs per unit by actual volume.
4. Keep fixed costs unchanged (within the relevant range).

Example

If planned = 24,000 units but actual = 20,000 units, then variable costs and revenues are adjusted to 20,000 units, but fixed costs remain the same.

Example Calculation (Flexible Budget Operating Income)

- Master: 150,000 units, revenue \$2.4M, var costs \$1.425M, contrib \$975k (\$6.50/unit), fixed \$750k, income \$225k.
- Actual: 180,000 units → Contrib \$1.17M ($\$6.50 \times 180k$), fixed \$750k → Income \$420k.

When and How It's Used

- Prepared after the period ends (when actual volume is known).
- Used monthly, quarterly, or yearly for variance analysis.
- Helps management focus on cost or efficiency variances, not volume differences.

Benefits of Flexible Budgeting

- Highlights variances not caused by sales volume changes.
- Allows better performance evaluation.
- Works well with standard costing systems.
- Isolates volume vs. efficiency variances; useful for control (e.g., direct materials/labor, but not fixed overhead).

Limitations of Flexible Budgeting

- Does not help identify causes of decline in sales.
- Requires a standard costing system to be meaningful.

- Cannot be prepared until actual activity is known.
- No aid for non-volume improvements.

Variance Analysis and Control

- **Flexible vs. Static for Variances:** Flexible isolates non-volume issues (e.g., efficiency); static includes volume effects.
- **Investigating Variances:** Consider magnitude, trend over time, and potential for future elimination; ignore favorability (favorable/unfavorable). When deciding which variances to investigate, consider:
 1. Magnitude – How large is the variance relative to the budgeted amount?
 2. Trend – Has it been recurring or increasing over time?
 3. Impact – Can investigation eliminate or prevent future issues? (Cost-benefit check)

What Is Cost-Benefit Analysis? Cost-benefit analysis is a decision-making tool used to evaluate whether the benefits of taking an action outweigh its costs. In budgeting, it helps determine whether investigating a variance is worth the effort and resources.

How It Applies to Variance Analysis When a company notices a variance (a difference between actual and budgeted results), it must decide whether to investigate it. Here's where cost-benefit analysis comes in:

- Cost: Time, effort, and resources needed to investigate the variance.
- Benefit: Potential to uncover a problem, improve efficiency, or prevent future issues. If the expected benefit of investigating a variance is greater than the cost, then it's worth pursuing.

Summary Table: Static Budget vs Flexible Budget

Aspect	Static Budget	Flexible Budget
Basis	Planned activity level	Actual activity level
Timing	Before the period	After the period
Adjusts for volume changes?	✗ No	✓ Yes
Focus	Total variance (includes volume)	Variances other than volume
Fixed Costs	Constant	Constant
Variable Costs	Based on planned volume	Based on actual volume
Use	Master Budget	Variance Analysis

Key Takeaway

Static Budget = Planned Volume Flexible Budget = Actual Volume Both are essential for proper variance analysis and performance evaluation.

3. Project Budgeting

Definition

A project budget is a financial plan for a specific project, covering all resources and costs for its duration. It can be short-term or long-term, depending on the project's time frame.

Key Features

- Covers only one identifiable project (not a period).
- May last weeks or several years depending on the project.
- Must be integrated into the company's master budget.
- Includes all costs: direct, indirect, and overheads.

Examples of Project Budgets

- Construction of a new plant or purchase of new machinery
- Product development & testing
- Acquisition of another company
- Software installation
- Marketing campaign for new market entry
- Long-term contracts
- One-off initiatives (e.g., warehouse expansion, custom home building, landscaping with conditional costs like free turf if >\$4,500)

Life-Cycle Budgeting

A life-cycle budget is a special type of project budget that covers a product's entire life — from development to decline. It helps management estimate total costs, revenues, and required ROI over the product's lifespan.

Benefits of Project Budgeting

- Helps determine if the project is feasible.
- Allows management to plan resources (staff, funds, supervision).
- Focuses attention on cash inflows/outflows.
- Promotes coordination among departments.
- Clarifies the time span and scope of each project.
- Tailored to unique scope; tracks discrete costs/benefits.

Limitations of Project Budgeting

- Requires long-term commitment and planning.
- Must be linked to the master budget to be useful.
- Missing indirect/overhead costs may lead to incomplete budgets.

- Not for ongoing operations.

4. Activity-Based Budgeting (ABB)

Definition

Activity-Based Budgeting (ABB) is a budgeting method that builds the budget around activities and their cost drivers, not just output volume. It's based on the same concept as Activity-Based Costing (ABC) — where costs are traced to activities that consume resources.

How ABB Works

1. Identify activities that drive overhead costs.
2. Estimate budgeted activity levels for each cost driver.
3. Create budgeted cost pools for each activity.
4. Calculate budgeted cost per activity unit = $\text{Total Budgeted Cost for Activity} \div \text{Budgeted Activity Units}$
5. Allocate overheads to products based on activity usage.

Example

If “machine setups” are a key activity:

- Budgeted total setup cost = ₹100,000
- Budgeted number of setups = 200
- Cost per setup = ₹500 → Overheads are applied to products based on setups required.

Benefits of ABB

- Identifies cost reduction and waste elimination opportunities.
- Promotes continuous improvement by focusing on value-added activities.
- Helps in resource planning if products or processes change.
- Clearly links resources, activities, and outputs.
- Detects budgetary slack.
- Assesses cost changes from driver variations; highlights value-added vs. non-value-added activities.

Limitations of ABB

- Must be used with Activity-Based Costing (ABC).
- Complex and time-consuming to implement.
- Requires managerial training and data collection.
- High implementation cost for detailed cost pools and drivers.
- Requires activity identification.

5. Zero-Based Budgeting (ZBB) vs Incremental Budgeting

Incremental Budgeting

- Uses current or previous year's budget as a base.
- Adjusts for expected changes (e.g., inflation, expansion).
- Assumes existing activities and costs are acceptable.

Formula: Next year's budget = Current year's budget $\pm$ Adjustments

Zero-Based Budgeting (ZBB)

- Starts from zero each year — no assumption of past expenses.
- Every expense must be justified with a cost-benefit analysis.
- Each activity must be ranked and approved before inclusion.
- Builds budget from zero each period; all activities justified via cost-benefit analysis without reference to prior budgets.
- Prioritizes "decision packages" (activities with costs/benefits); evaluates maintain/reduce/eliminate.

Benefits of ZBB

- Forces managers to justify every cost.
- Helps identify non-value-added activities.
- Promotes efficient resource allocation through activity ranking.
- Encourages creative cost-saving methods.
- Identifies non-value-adding costs; promotes efficiency and cuts waste; aligns with continuous improvement.

Limitations of ZBB

- Extremely time-consuming to review every activity yearly.
- Requires significant managerial effort.
- May be implemented periodically (rotationally) to reduce workload.
- Requires detailed justification.

Key Comparison: Incremental Budgeting vs Zero-Based Budgeting (ZBB)

Aspect	Incremental Budgeting	Zero-Based Budgeting (ZBB)
Base	Current year's results	Starts from zero
Justification	Only for changes	For every expense
Time Required	Less	Much more

Aspect	Incremental Budgeting	Zero-Based Budgeting (ZBB)
Innovation	Low	High
Cost Focus	May overlook inefficiencies	Highlights inefficiencies
Usefulness	Stable environments	Dynamic, cost-sensitive environments
Assumes base is satisfactory; focuses on deltas	Quick and low-effort; stable for minor changes	Fully justifies (cuts waste)
Perpetuates inefficiencies; ignores full justification		

6. Continuous (Rolling) Budgets

Definition

A continuous or rolling budget is continuously updated — when one month or quarter ends, a new one is added. Extends budget forward (e.g., 12 months) by adding a new period as the oldest drops; updated regularly (e.g., monthly).

Example

If in September 20X3, the budget covers Oct 20X3 – Sep 20X4, then in October, it rolls forward to Nov 20X3 – Oct 20X4.

How It Works

- Always covers a fixed future time period (e.g., next 12 months).
- Revised regularly to reflect new data and forecasts.
- Ensures constant planning and forecasting.
- Always covers fixed future horizon; revises for new info.

Benefits of Rolling Budgets

- Greater flexibility — adapts to changes quickly.
- Always has a 12-month (or set period) plan in place.
- Provides up-to-date and realistic forecasts.
- Improves long-term planning.
- Enhances coordination and communication between departments.
- Supports better decision-making with current data.
- Keeps budgets current; reacts to changes; supports ongoing planning.

Limitations of Rolling Budgets

- Time-consuming for frequent updates.

- Increases workload for managers and staff.
- Higher administrative costs (may need advanced software).
- Frequent changes can create budget volatility.
- May face resistance due to continuous revisions.
- Resource-intensive updates.

What Is Budget Volatility?

Budget volatility refers to the degree of fluctuation or unpredictability in a company's budgeted figures—especially those tied to activity levels like sales volume, production output, or resource usage. It reflects how much the actual results can deviate from the original budget, often due to changes in market demand, operational conditions, or external factors.

7. Other Budgeting Methodologies

Strategic Budget

Definition: Aligns with long-term objectives (>1 year). **Key Characteristics:** Incorporates multi-year goals into annual plans. **Advantages:** Supports vision alignment. **Disadvantages:** Less detailed for short-term control. **When to Use:** Goal-oriented planning (e.g., growth strategies).

Kaizen Budgeting

Definition: Projects costs based on continuous improvements in practices/procedures. **Key Characteristics:** Assumes ongoing enhancements (e.g., efficiency gains). **Advantages:** Drives incremental improvements. **Disadvantages:** Relies on achievable changes. **When to Use:** Lean/manufacturing firms focused on waste reduction.

8. Overview of Budget Types: Key Comparison Table

Budget Type	Definition	Key Characteristics	Advantages	Disadvantages	When to Use
Master Budget	Comprehensive set of budgeted financial statements (income statement, balance sheet, cash flows) for a fiscal year, compiling all operational and financial schedules.	Static; based on one projected activity level; includes operating (e.g., sales, production) and financial (e.g., cash, capital) budgets.	Provides holistic view of plans; integrates operating and financing decisions; supports resource allocation.	Outdated if activity changes; rigid for variance analysis.	Annual planning in stable environments; foundation for other budgets.
Static Budget	Budget prepared for a single activity level	Fixed revenues/costs; used for initial planning and constant	Simple to prepare; aligns with	Ignores volume variances;	Short-term planning with predictable

Budget Type	Definition	Key Characteristics	Advantages	Disadvantages	When to Use
	(e.g., planned sales volume); unchanged throughout the period.	comparison with actuals.	master budget.	poor for performance evaluation in variable conditions.	activity (e.g., non-seasonal firms).
Flexible Budget	Adjusts static/master budget for actual activity level using standard costs per unit.	Variable costs/revenues scaled by actual output; fixed costs unchanged (within relevant range).	Isolates volume vs. efficiency variances; useful for control (e.g., direct materials/labor, but not fixed overhead).	Cannot be prepared until actual activity known; no aid for non-volume improvements.	Performance evaluation in variable environments (e.g., seasonal sales, unexpected volume spikes like restaurant traffic).
Zero-Based Budgeting (ZBB)	Builds budget from zero each period; all activities justified via cost-benefit analysis without reference to prior budgets.	Prioritizes "decision packages" (activities with costs/benefits); evaluates maintain/reduce/eliminate.	Identifies non-value-adding costs; promotes efficiency and cuts waste; aligns with continuous improvement.	Time-consuming; requires detailed justification.	Cost-cutting scenarios (e.g., low margins, new management reviewing overspending); non-profits/government.
Rolling/Continuous Budget	Extends budget forward (e.g., 12 months) by adding a new period as the oldest drops; updated regularly (e.g., monthly).	Always covers fixed future horizon; revises for new info.	Keeps budgets current; reacts to changes; supports ongoing planning.	Resource-intensive updates.	Dynamic environments where annual budgets outdated quickly (e.g., fast-changing markets).
Activity-Based Budgeting (ABB)	Allocates costs based on budgeted activities and	Links costs to processes; uses cost pools and drivers;	Assesses cost changes from driver	Complex; requires activity	Process-focused firms (e.g., manufacturing with overhead);

Budget Type	Definition	Key Characteristics	Advantages	Disadvantages	When to Use
	cost drivers (e.g., machine hours, setups).	integrates with activity-based costing.	variations; highlights value-added vs. non-value-added activities.	identification.	continuous improvement via waste elimination.
Project Budget	Budget for a specific, identifiable project with its own timeline (e.g., construction).	Includes all project costs (e.g., labor, materials, financing); timeframe matches project duration.	Tailored to unique scope; tracks discrete costs/benefits.	Not for ongoing operations.	One-off initiatives (e.g., warehouse expansion, custom home building).
Incremental Budgeting	Adjusts prior period's budget/actuals for expected changes (e.g., inflation, volume).	Assumes base is satisfactory; focuses on deltas.	Quick and low-effort; stable for minor changes.	Perpetuates inefficiencies; ignores full justification.	Stable organizations with predictable adjustments.
Strategic Budget	Aligns with long-term objectives (>1 year).	Incorporates multi-year goals into annual plans.	Supports vision alignment.	Less detailed for short-term control.	Goal-oriented planning (e.g., growth strategies).
Kaizen Budgeting	Projects costs based on continuous improvements in practices/procedures.	Assumes ongoing enhancements (e.g., efficiency gains).	Drives incremental improvements.	Relies on achievable changes.	Lean/manufacturing firms focused on waste reduction.

Common methodologies include master, flexible, zero-based, rolling, activity-based, and project budgeting.

9. Applications and Scenarios

- **Seasonal/Variable Activity:** Flexible budgeting (e.g., peak seasons with temp hires).
- **Cost Reduction:** ZBB (e.g., low-profit home builder reviewing waste).
- **Outdated Annual Budgets:** Rolling (e.g., monthly updates for real-time relevance).
- **Project-Specific:** Project budgeting (e.g., landscaping with conditional costs like free turf if >\$4,500).

- **Continuous Improvement:** ABB or ZBB (focus on value-added activities); avoid flexible (doesn't eliminate waste).

10. Advantages of Methodologies Over Alternatives

- **ZBB vs. Incremental:** ZBB fully justifies (cuts waste); incremental faster but assumes base validity.
- **Flexible vs. Static:** Flexible accommodates activity changes; static simpler but misleading for control.

These notes emphasize practical insights from exam-style questions. For deeper dives, review supporting schedules (e.g., sales forecast, production plan) in annual profit planning.

Summary Table — Key Budgeting Methods

Method	Focus / Scope	Time Span	Main Advantage	Main Limitation
Project Budgeting	Individual project	Project life	Evaluates feasibility & ROI	Needs master budget integration
Activity-Based Budgeting (ABB)	Activity cost drivers	Period-based	Identifies value-added activities	Costly & complex
Zero-Based Budgeting (ZBB)	Justified activities	Annual	Eliminates wasteful expenses	Time-consuming
Incremental Budgeting	Previous year + adjustments	Annual	Simple & stable	May perpetuate inefficiency
Rolling Budget	Continuous 12-month horizon	Ongoing	Always up-to-date	Requires constant updates